

Table S-1. Proportional hazard results for cardiopulmonary mortality and organic carbon using 8 km buffer for model that is unadjusted, adjusted for individual covariates, and adjusted for both individual and ecological covariates.

Variables	Model 1		Model 2		Model 3	
	Age/race strata		Age/race strata + individual level risk factors		Age/race strata + individual level risk factors + ecological measures	
Organic Carbon *	1.69	1.50, 1.90	1.63	1.43, 1.85	1.64	1.44, 1.87
Smoker - Never		1.00	-	1.00	-	
Smoker - Former		0.95	0.67, 1.35	0.94	0.66, 1.33	
Smoker - Current		2.79	1.64, 4.73	2.85	1.68, 4.83	
Smoking Pack-years		1.01	1.01, 1.02	1.01	1.01, 1.02	
BMI 16-20		1.28	0.82, 2.00	1.28	0.82, 2.01	
BMI 21-24		1.00	-	1.00	-	
BMI 25-29		1.06	0.78, 1.44	1.06	0.78, 1.45	
BMI 30-39		1.28	0.85, 1.93	1.31	0.87, 1.98	
BMI 40-55		1.79	0.43, 7.52	2.01	0.48, 8.42	
BMI Unknown		1.56	1.07, 2.28	1.59	1.09, 2.32	
Married - Yes		1.00	-	1.00	-	
Married - No		0.98	0.70, 1.37	0.97	0.69, 1.36	
Married - Unknown		1.30	0.93, 1.80	1.29	0.93, 1.80	
Non-Drinker		1.00	-	1.00	-	
Beer Drinker		0.84	0.57, 1.24	0.80	0.54, 1.18	
Wine Drinker		1.01	0.76, 1.33	1.02	0.77, 1.36	
Liquor Drinker		0.85	0.63, 1.15	0.86	0.63, 1.17	
Alcohol Unknown		1.03	0.55, 1.91	1.09	0.58, 2.04	
ETS Exposure - No		1.00	-	1.00	-	
ETS Exposure - Yes		1.00	0.74, 1.33	1.00	0.75, 1.34	
ETS Exposure - Unknown		1.22	0.67, 2.24	1.26	0.69, 2.31	

Variables	Model 1		Model 2		Model 3	
	Age/race strata		Age/race strata + individual level risk factors		Age/race strata + individual level risk factors + ecological measures	
	HR	95% CI	HR	95% CI	HR	95% CI
Dietary Fat - Low		1.00	-	1.00	-	
Dietary Fat - Medium		0.88	0.62, 1.25	0.88	0.62, 1.25	
Dietary Fat - High		1.15	0.72, 1.84	1.19	0.74, 1.92	
Dietary Fiber - Low		1.11	0.76, 1.62	1.10	0.75, 1.61	
Dietary Fiber - Medium		0.93	0.66, 1.31	0.91	0.64, 1.29	
Dietary Fiber - High		1.00	-	1.00	-	
Dietary Calories - Low		1.00	-	1.00	-	
Dietary Calories - Medium		0.97	0.66, 1.42	0.95	0.64, 1.39	
Dietary Calories - High		0.72	0.40, 1.28	0.67	0.37, 1.21	
Dietary Intake - Unknown		0.92	0.51, 1.64	0.90	0.50, 1.61	

Variables	Model 1		Model 2		Model 3	
	Age/race strata		Age/race strata + individual level risk factors		Age/race strata + individual level risk factors + ecological measures	
	HR	95% CI	HR	95% CI	HR	95% CI
Physical Activity - Low		0.88	0.66, 1.18		0.86	0.64, 1.16
Physical Activity - Medium		0.76	0.55, 1.06		0.76	0.55, 1.06
Physical Activity - High		1.00	-		1.00	-
Physical Activity - Unknown		1.27	0.52, 3.13		1.36	0.55, 3.36
Pre-menopausal status		1.00	-		1.00	-
Peri/post menopausal & no HT		1.06	0.29, 3.88		1.05	0.29, 3.85
Peri/post menopausal & past HT		1.13	0.31, 4.15		1.11	0.30, 4.07
Peri/post menopausal & current estrogen		0.85	0.23, 3.11		0.84	0.23, 3.09
Peri/post menopausal & current estrogen/progestin		0.65	0.17, 2.48		0.63	0.17, 2.38
Menoapusal status & HT - Unknown		0.96	0.26, 3.50		0.94	0.26, 3.41
Family history of Stroke - No		1.00	-		1.00	-
Family history of Stroke - Yes		0.92	0.71, 1.21		0.93	0.71, 1.21
Family history of MI - No		1.00	-		1.00	-
Family history of MI - Yes		1.05	0.82, 1.35		1.05	0.82, 1.34
Blood pressure medication use - None		1.00	-		1.00	-
Blood pressure medication use - Low		0.72	0.17, 3.06		0.68	0.16, 2.89
Blood pressure medication use - High		1.31	1.01, 1.71		1.31	1.00, 1.70
Blood pressure medication use - Unknown		1.32	0.80, 2.17		1.34	0.81, 2.22
Aspirin Use - None		1.00	-		1.00	-
Aspirin Use - Low		0.85	0.53, 1.38		0.86	0.53, 1.39
Aspirin Use - High		1.10	0.82, 1.48		1.11	0.83, 1.49
Aspirin Use - Unknown		0.85	0.46, 1.59		0.85	0.45, 1.59
Total population					1.00	1.00, 1.00
% white					0.99	0.98, 1.00
% black					1.00	0.98, 1.02
% hispanic					0.99	0.97, 1.00
Median household income					1.00	1.00, 1.00
% unemployment					1.06	0.99, 1.14
% below poverty level					0.99	0.97, 1.01
% 4-year college or greater					1.00	0.98, 1.01

	Model 1		Model 2		Model 3	
Variables	HR	95% CI	HR	95% CI	HR	95% CI
Age/race strata			Age/race strata + individual level risk factors		Age/race strata + individual level risk factors + ecological measures	

* HRs and 95%CI based on the IQR for organic carbon

Table S-2. Association between cardiopulmonary mortality and PM_{2.5} and its constituents using an 8 km buffer with exposures from June 1, 2002 – July 31, 2007 and cohort follow-up from June 1, 2003 – July 31, 2007.

Pollutant	IQR ($\mu\text{g}/\text{m}^3$)	Cardiopulmonary (n = 1,279)
PM _{2.5}	6.1	1.56 (1.23, 1.98)
Elemental carbon	0.16	1.13 (1.02, 1.26)
Organic carbon	1.03	1.46 (1.24, 1.71)
Sulfate	1.26	1.48 (1.19, 1.84)
Nitrate	3.56	1.61 (1.27, 2.05)
Iron	0.06	1.30 (1.05, 1.61)
Potassium	0.04	1.43 (1.13, 1.82)
Silicon	0.05	1.32 (1.14, 1.52)
Zinc	0.01	1.26 (1.11, 1.44)